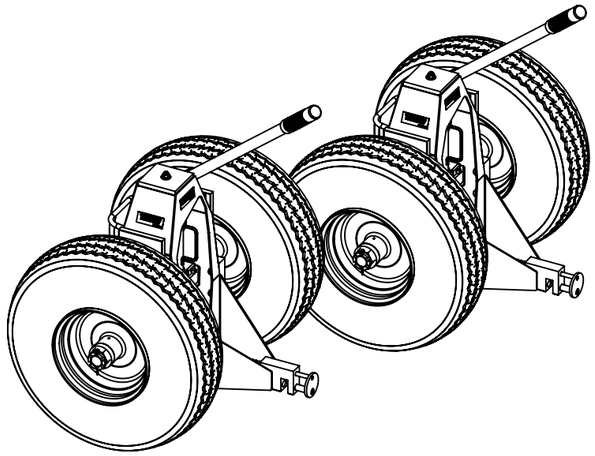
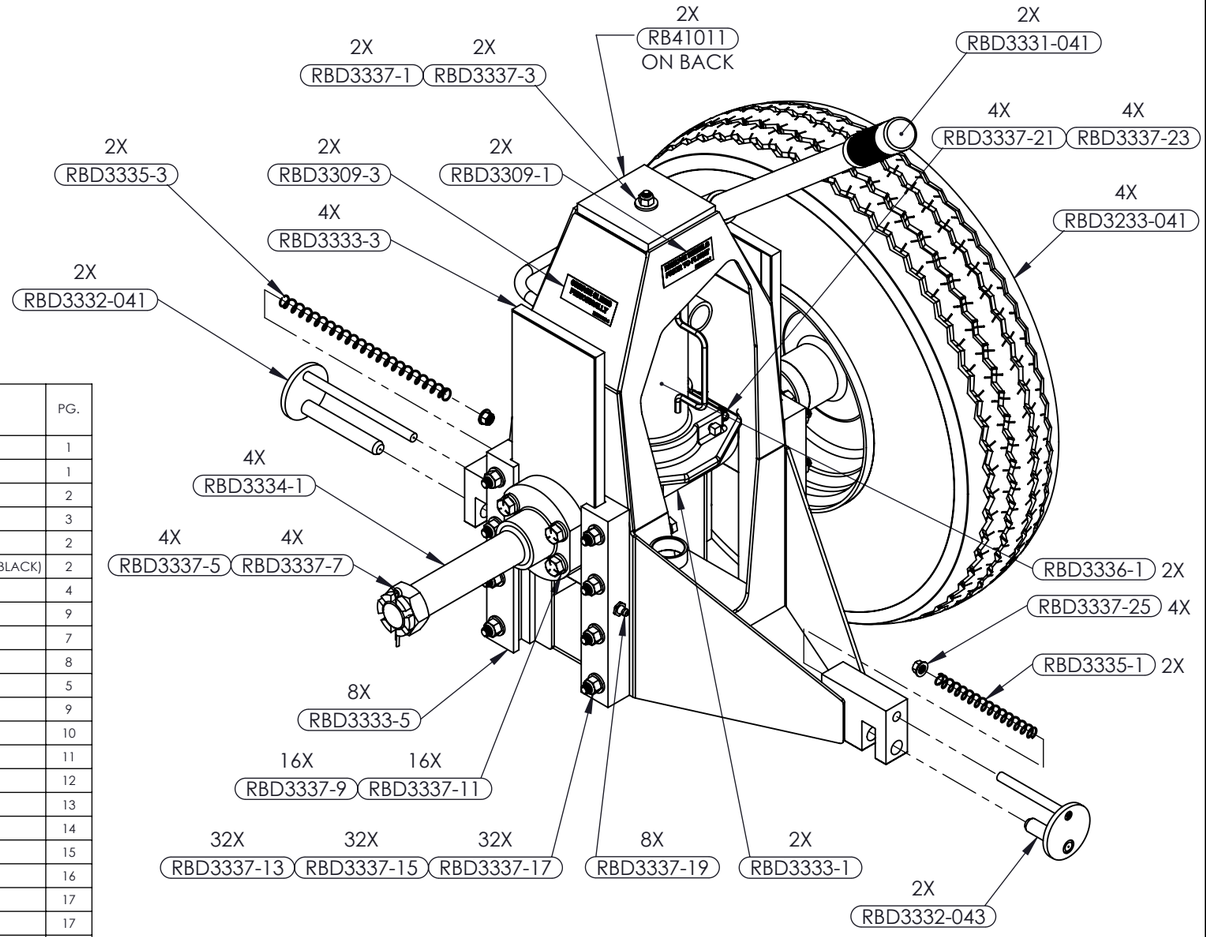
SEE ATTACHED DEVIATION



REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		**-1** DIM CH'D WAS 21.000 IS 21.0. **-5** CH'D DO, WAS Ø.332 IS .344.	6/18/2014	RJC	GE
2	16-0039	UPDATED TO NEW DRAFTING STANDARDS. CH'D DWG NUMBER WAS **RBD412-729-11** IS **RBD412-729-011**. **RBD3332-7** MOVED TO SEPERATE SHEET. **RBD3332-9** MOVED TO SEPERATE SHEET. **RBD3333-3** CH'D DIM WAS .650 IS .660. WAS 1.200 IS 2X 1.200. **RBD3333-5** CH'D DIM WAS Ø.334 IS Ø.344. **RBD3334-1** CH'D DIM WAS 7.47 IS (7.47). **RBD3336-3** CH'D B/O WAS 1/4-20 X 01 IS 1/4-20 X 1. **RBD3337-13** CH'D DIM WAS 1-1/2 IS 1- 3/4. **RBD3309-3** MOVED TO SEPERATE SHEET. **RBD3335-3** MOVED TO NEW SHEET. CH'D PLACARD WAS **RB41009** IS **RB41011**.	2/16/2016	SM	JAG



ASSY QTY	ASSY QTY	ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
					RBD3233-041	4	WHEEL ASSY			1
					RBD3330-041	2	FRAME WELDMENT			1
			X		RBD3331-041	2	HANDLE ASSY			2
			1		RBD3331-1	1	HANDLE	DOM		3
			1	B/O	RBD3331-3	1	DOWEL PIN	STEEL	Ø3/16 X 1 (MCMASTER-CARR # 98381A510)	2
			1	B/O	RBD3331-5	1	GRIP	VINYL	FITS 7/8 IN OD TUBING x 4-3/4 IN LONG (MCMASTER-CARR # 97045K491, BLACK)	2
		X			RBD3332-041	2	PIN ASSEMBLY			4
	1	1			RBD3332-1		HANDLE	1018/1020 CR		9
		1			RBD3332-3		PIN	1018/1020 CR		7
		1			RBD3332-5		SHAFT	1018/1020 CR		8
	X				RBD3332-043	2	PIN ASSEMBLY			5
	1				RBD3332-7		PIN	1018/1020 CR		9
	1				RBD3332-9		SHAFT	1018/1020 CR		10
					RBD3333-1	2	BASE PLATE	4140/4142		11
					RBD3333-3	4	SLIDING PLATE	4140/4142		12
					RBD3333-5	8	RAIL	1018/1020 CR		13
					RBD3334-1	4	WHEEL SHAFT	4140/4142		14
					RBD3335-1	2	SPRING	STEEL	VICTORY SPRING # D3335 (MODIFIED)	15
					RBD3335-3	2	SPRING	STEEL	VICTORY SPRING # D3335 (MODIFIED)	16
X					RBD3336-1	2	JACK ASSY		NORCO #76508 (MODIFIED)	17
1				B/O	RBD3336-3		STUD	STEEL	1/4-20 X 1 (MCMASTER-CARR #98750A011)	17
				B/O	RBD3337-1	2	NYLOCK NUT	STEEL	1/4-20 (MCMASTER-CARR # 95615A120)	1
				B/O	RBD3337-3	2	WASHER		1/4 (MCMASTER-CARR # 91081A129)	1
				B/O	RBD3337-5	4	SLOTTED NUT	STEEL	1-1/4 (MCMASTER-CARR # 95030A320)	1
				B/O	RBD3337-7	4	COTTER PIN	STEEL	Ø1/8 X 2 (MCMASTER-CARR # 98338A200)	1
				B/O	RBD3337-9	16	HEX HEAD CAP SCREW	STEEL	3/8-24 X 1-1/4 (MCMASTER-CARR # 92865A217)	1
				B/O	RBD3337-11	16	LOCK WASHER	STEEL	3/8 (MCMASTER-CARR # 91102A760)	1
				B/O	RBD3337-13	32	HEX HEAD CAP SCREW	STEEL	5/16-18 X 1-3/4 (MCMASTER-CARR # 91247A589)	1
				B/O	RBD3337-15	32	FLAT WASHER	STEEL	5/16 (MCMASTER-CARR # 90126A030)	1
				B/O	RBD3337-17	32	NYLOCK NUT	STEEL	5/16-18 (MCMASTER-CARR # 95615A160)	1
				B/O	RBD3337-19	8	GREASE FITTING	STEEL	1/8 NPT (MCMASTER-CARR # 1095K65)	1
				B/O	RBD3337-21	4	SOCKET HEAD CAP SCREW	STEEL	1/4-20 X 3/4 (MCMASTER-CARR # 91251A540)	1
				B/O	RBD3337-23	4	FLAT WASHER	STEEL	1/4 (MCMASTER-CARR # 91090A105)	1
				B/O	RBD3337-25	4	NYLOCK NUT	STEEL	5/16-24 (MCMASTER-CARR # 97135A225)	1
				B/O	RBD3309-1	2	LABEL, REMOVE BEFORE FLIGHT		SIGNS NOW	18
				B/O	RBD3309-3	2	LABEL, GREASE SLIDES		SIGNS NOW	19
				B/O		2	DART PLACARD	ALUMINUM	RB41011	N/S
				B/O		1	CRATE		CRATE (id) 44 X 24 X 24, ISPM-15 CERTIFIED (SPECIALTY CRATE)	N/S

UNDER REVIEW

URF 19-1099 19.10.30 (VM)

NOTE:
1) APPLY RUST INHIBITOR ON ALL PARTS AND AREAS NOT PROTECTED BY PAINT OR GREASE. RUST INHIBITOR POSSIBLE SUPPLIER: ACKLANDS-GRANGER INC., P/N LPSC30316.
2) USED ON BELL MODELS 204, 205, 212, 214,412, UH1, 222, 230, & AH1.

DART AEROSPACE

TITLE: GROUND HANDLING WHEELS

DWG NO. RBD412-729-011 REV 2

MAT'L	
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	GILBERT
CHECKED:	CLOUGH
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT
SCALE	1:5
DATE	3/15/2012

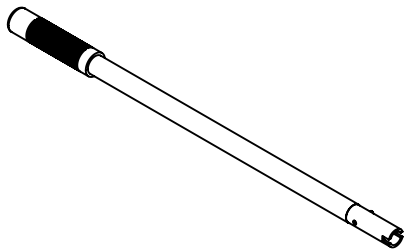
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

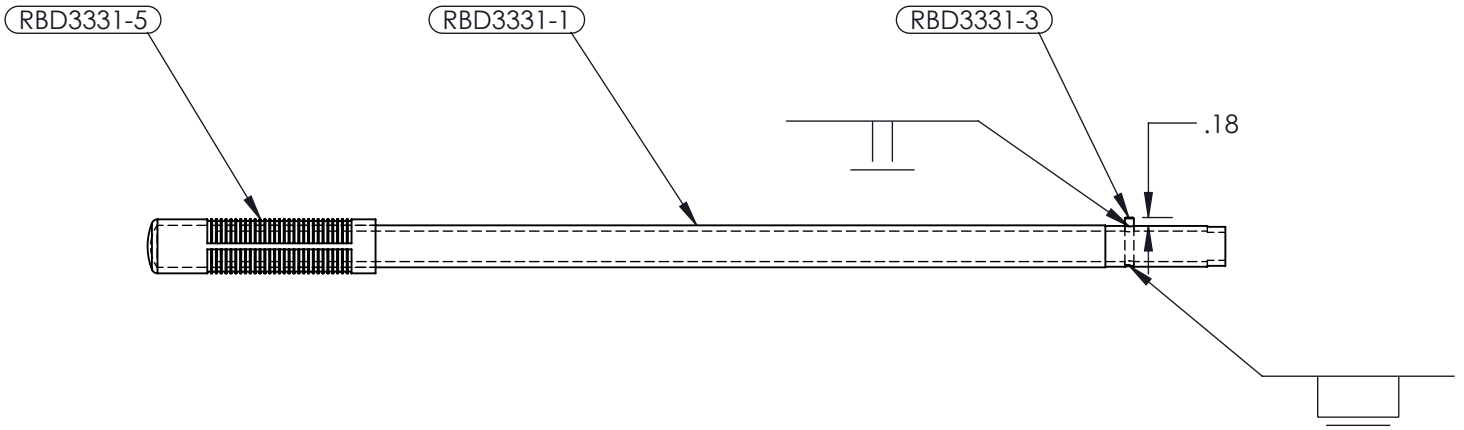
USED ON MODEL: SEE NOTE 2

SHEET 1 OF 19

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED

SEE ATTACHED DEVIATION





UNDER REVIEW

URF 19-1099 19.10.30 (VM)

RBD3331-041
HANDLE ASSY

DART AEROSPACE

TITLE
GROUND HANDLING WHEELS

DWG NO.	RBD412-729-011 RBD3331-041
REV	2
MAT'L	
HEAT TREAT	
FINISH	POWDER COAT YELLOW
SPEC	FED #13538
DRAWN BY:	GILBERT
CHECKED:	
OPPS APPR:	
QA APPR:	
APPROVED:	GILBERT
SCALE	1:4
DATE	3/15/2012
SHEET	2 OF 19

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

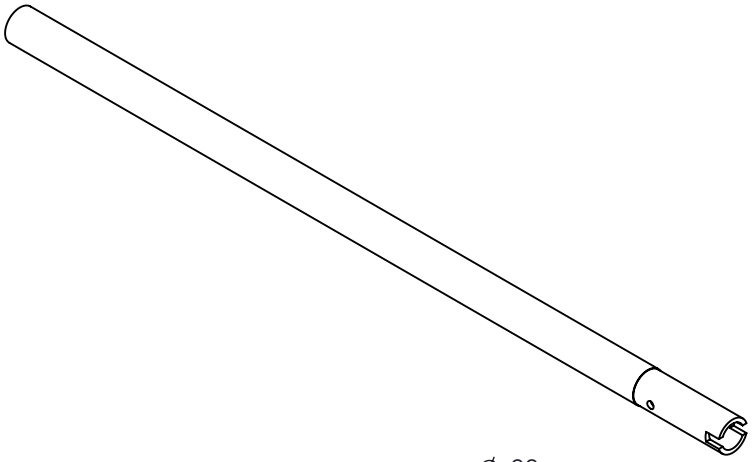
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

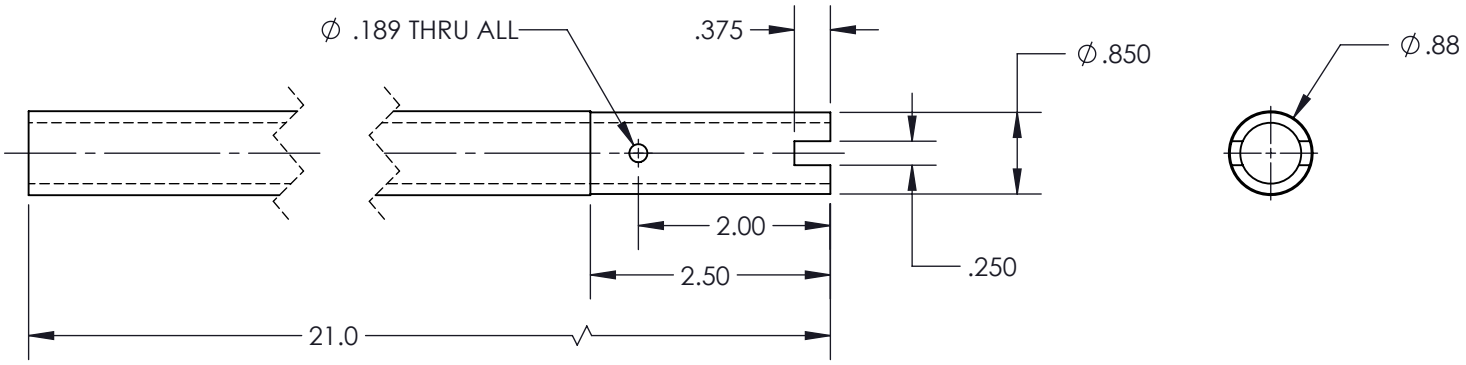
USED ON MODEL
SEE NOTE 2 SHT 1

REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		**-1** DIM CH'D WAS 21.000 TO 21.0.	6/18/2014	RJC	GE

SEE ATTACHED DEVIATION





UNDER REVIEW

URF 19-1099 19.10.30 (VM)

RBD3331-1
HANDLE

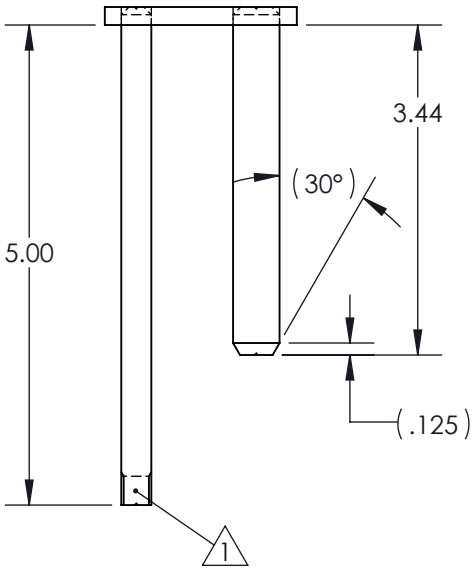
DART AEROSPACE

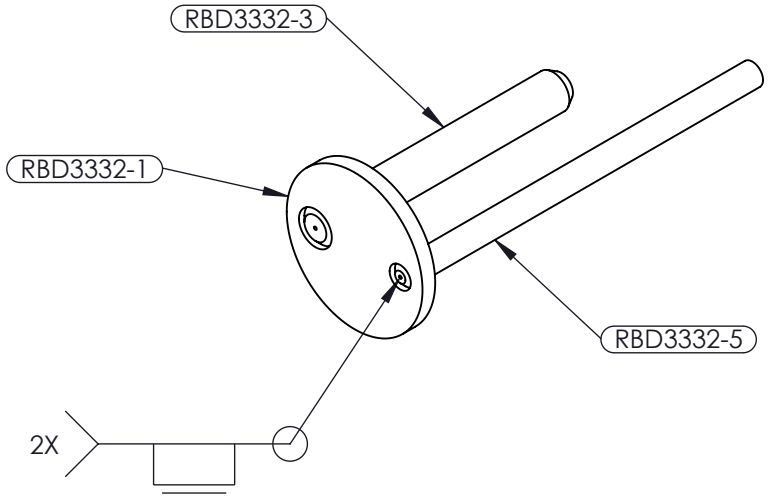
TITLE
GROUND HANDLING WHEEL

DWG NO.	RBD412-729-011 RBD3331-1	REV 2
MAT'L DOM	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
HEAT TREAT	.XXX ± .005 FRACTIONS ± 1/8	
FINISH SEE RBD3331-041	.XX ± .01 ANGLES ±.5°	
SPEC	.X ± .1 SURFACES = 125	
DRAWN BY: GILBERT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	
CHECKED:	2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
OPPS APPR:	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
QA APPR:	USED ON MODEL	
APPROVED: GILBERT	SEE NOTE 2 SHT 1	
SCALE 1:2	DATE 3/15/2012	SHEET 3 OF 19

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED

SEE ATTACHED DEVIATION





NOTE:
1) NO POWDER COAT ON THREADS.
2) POSITION PARTS USING D3332-041T1.

UNDER REVIEW

URF 19-1099 19.10.30 (VM)

RBD3332-041
PIN ASSEMBLY

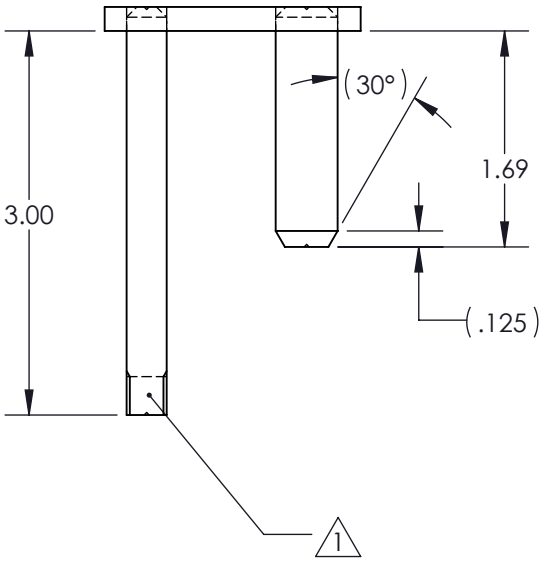
DART AEROSPACE

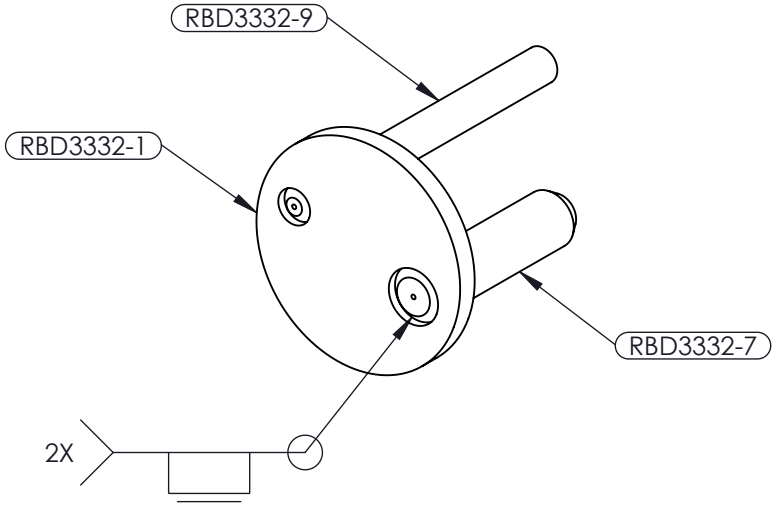
TITLE: GROUND HANDLING WHEEL

DWG NO.	RBD412-729-011 RBD3332-041	REV 2
MAT'L		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT		.XXX ± .005 FRACTIONS ± 1/8
FINISH	POWDER COAT YELLOW	.XX ± .01 ANGLES ±.5°
SPEC	FED #13538	.X ± .1 SURFACES = 125
DRAWN BY:	GILBERT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED:		2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR:		3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR:		USED ON MODEL
APPROVED:	GILBERT	SEE NOTE 2 SHT 1
SCALE	1:2	DATE 3/15/2012 — SHEET 4 OF 19

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED

SEE ATTACHED DEVIATION





NOTE:
1) NO POWDER COAT ON THREADS.
2) POSITION PARTS USING D3332-041T1.

UNDER REVIEW

URF 19-1099 19.10.30 (VM)

RBD3332-043
PIN ASSEMBLY

DART AEROSPACE

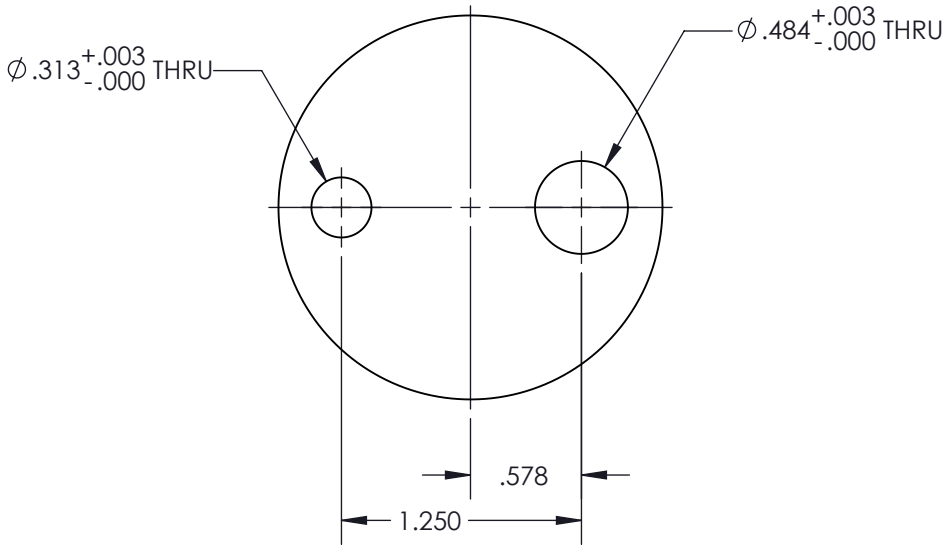
TITLE: GROUND HANDLING WHEEL

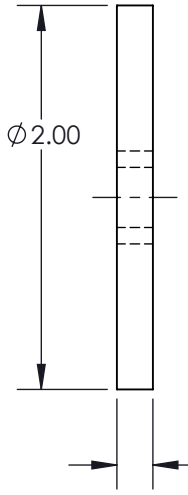
DWG NO.	RBD412-729-011 RBD3332-043	REV 2
MAT'L		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT		.XXX ± .005 FRACTIONS ± 1/8
FINISH	POWDER COAT YELLOW	.XX ± .01 ANGLES ±.5°
SPEC	FED #13538	.X ± .1 SURFACES = 125
DRAWN BY:	GILBERT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED:		2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR:		3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR:		USED ON MODEL
APPROVED:	GILBERT	SEE NOTE 2 SHT 1
SCALE	2:3	DATE 3/15/2012
		SHEET 5 OF 19

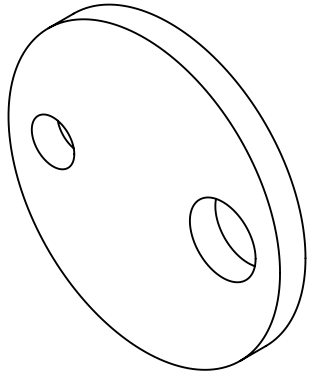
REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED

SEE ATTACHED DEVIATION







UNDER REVIEW

URF 19-1099 19.10.30 (VM)

RBD3332-1
HANDLE

DART AEROSPACE

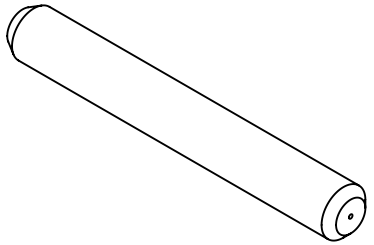
TITLE: GROUND HANDLING WHEELS

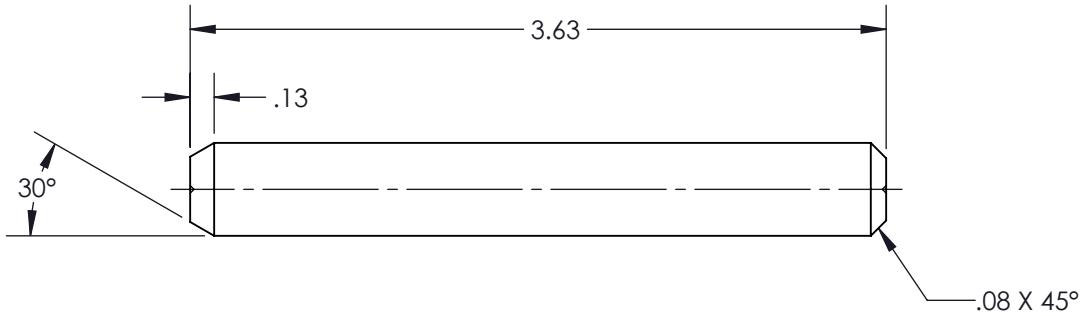
DWG NO.	RBD412-729-011 RBD3332-1	REV 2
MAT'L	1018/1020 CR	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 SURFACES = 125
HEAT TREAT		
FINISH	SEE RBD3332-041/RBD3332-043	
SPEC		
DRAWN BY:	GILBERT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
CHECKED:		
OPPS APPR:		
QA APPR:		USED ON MODEL
APPROVED:	GILBERT	SEE NOTE 2 SHT 1
SCALE	1:1	DATE 3/15/2012 — SHEET 6 OF 19

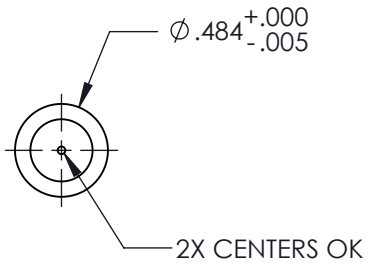
REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0039	**RBD3332-7** MOVED TO SEPERATE SHEET.	2/16/2016	SM	JAG

SEE ATTACHED DEVIATION







UNDER REVIEW

URF 19-1099 19.10.30 (VM)

RBD3332-3

PIN

DART AEROSPACE

TITLE: GROUND HANDLING WHEELS

DWG NO.	RBD412-729-011 RBD3332-3
REV	2
MAT'L	1018/1020 CR
HEAT TREAT	
FINISH	SEE RBD3332-041
SPEC	
DRAWN BY:	GILBERT
CHECKED:	
OPPS APPR:	
QA APPR:	
APPROVED:	GILBERT
SCALE	1:1
DATE	3/15/2015
SHEET	7 OF 19

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

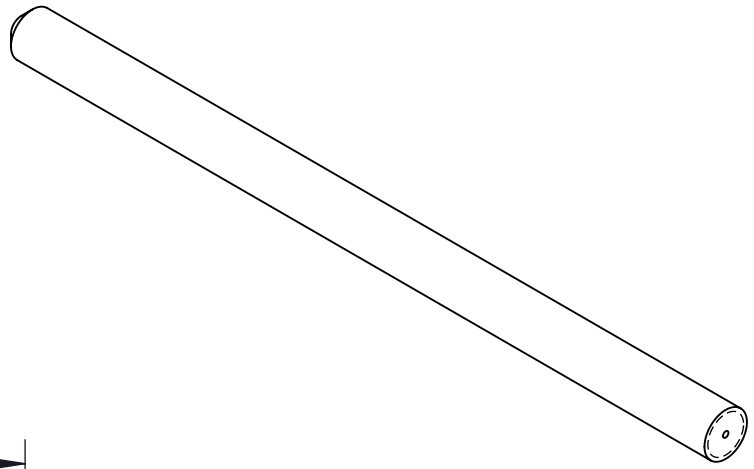
USED ON MODEL

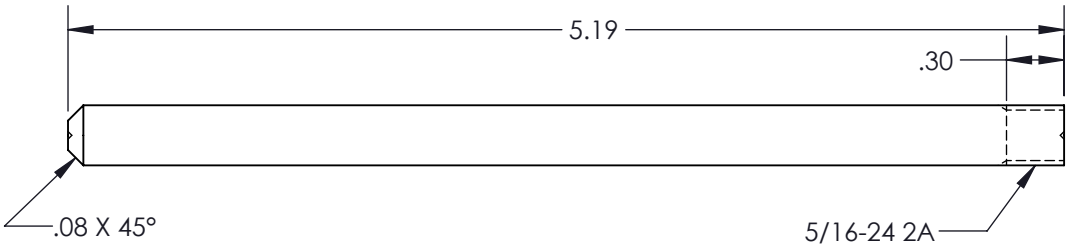
SEE NOTE 2 SHT 1

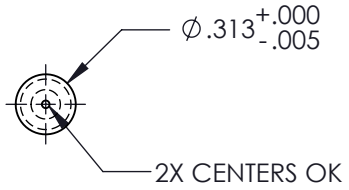
REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0039	**RBD3332-9** MOVED TO SEPERATE SHEET.	2/16/2016	SM	JAG

SEE ATTACHED DEVIATION







UNDER REVIEW

URF 19-1099 19.10.30 (VM)

RBD3332-5

SHAFT

DART AEROSPACE

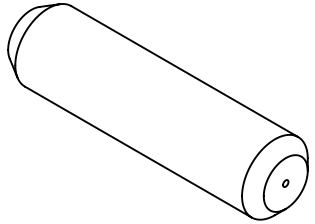
TITLE: GROUND HANDLING WHEELS

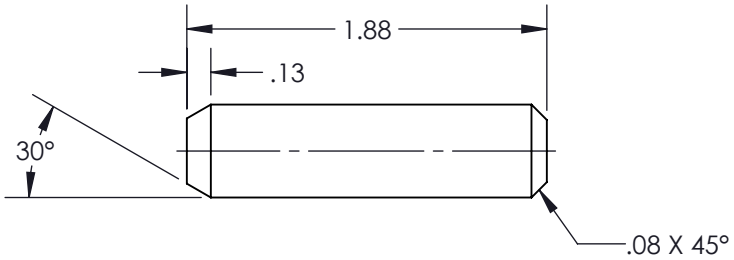
DWG NO.	RBD412-729-011 RBD3332-5	REV 2
MAT'L 1018/1020 CR		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 SURFACES = 125
HEAT TREAT		
FINISH SEE RBD3332-041		
SPEC		1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
DRAWN BY:	GILBERT	
CHECKED:		
OPPS APPR:		
QA APPR:		USED ON MODEL
APPROVED:	GILBERT	SEE NOTE 2 SHT 1
SCALE 1:1	DATE 3/15/2012	SHEET 8 OF 19

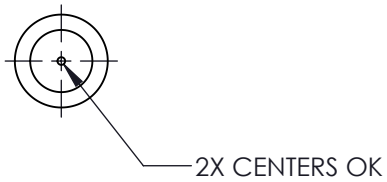
REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0039	**RBD3332-5** ADDED TO NEW SHEET.	2/16/2016	SM	JAG

SEE ATTACHED DEVIATION







UNDER REVIEW

URF 19-1099 19.10.30 (VM)

RBD3332-7

PIN

DART AEROSPACE

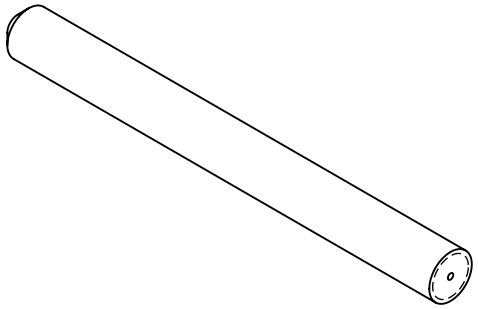
TITLE: GROUND HANDLING WHEELS

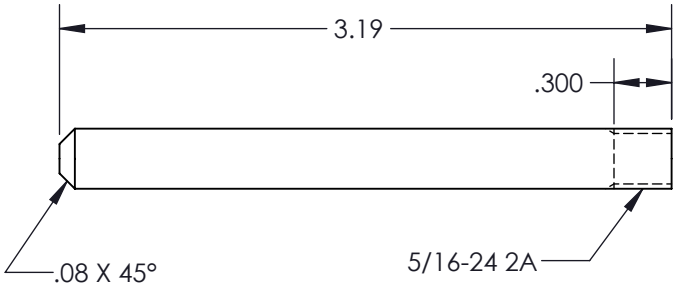
DWG NO.	RBD412-729-011 RBD3332-7	REV 2
MAT'L	1018/1020 CR	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT		.XXX ± .005 FRACTIONS ± 1/8
FINISH	SEE RBD3332-043	.XX ± .01 ANGLES ±.5°
SPEC		.X ± .1 SURFACES = 125
DRAWN BY:	GILBERT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED:		2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR:		3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR:		USED ON MODEL
APPROVED:	GILBERT	SEE NOTE 2 SHT 1
SCALE	1:1	DATE 3/15/2015

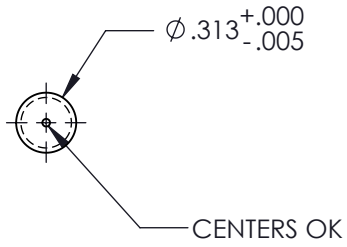
REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0032	**RBD3332-9** ADDED TO NEW SHEET.	2/16/2016	SM	JAG

SEE ATTACHED DEVIATION







UNDER REVIEW

URF 19-1099 19.10.30 (VM)

RBD3332-9
SHAFT

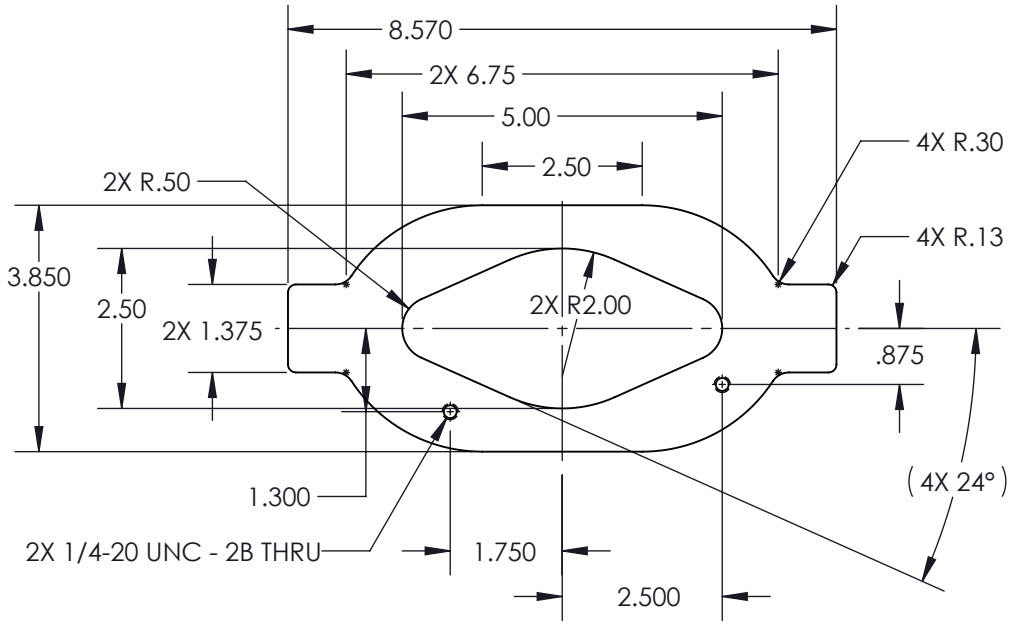
DART AEROSPACE

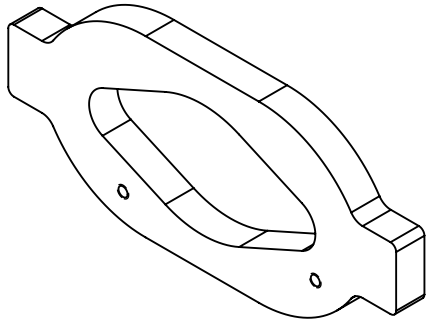
TITLE: GROUND HANDLING WHEELS

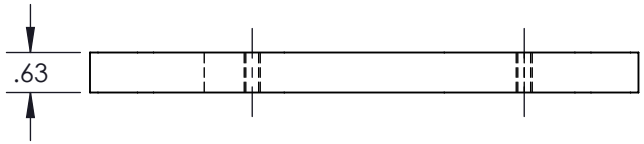
DWG NO.	RBD412-729-011 RBD3332-9	REV 2
MAT'L	1018/1020 CR	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT		.XXX ± .005 FRACTIONS ± 1/8
FINISH	SEE RBD3332-043	.XX ± .01 ANGLES ±.5°
SPEC		.X ± .1 SURFACES = 125
DRAWN BY:	GILBERT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED:		2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR:		3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR:		USED ON MODEL
APPROVED:	GILBERT	SEE NOTE 2 SHT 1
SCALE	1:1	DATE 3/15/2012 — SHEET 10 OF 19

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED

SEE ATTACHED DEVIATION







RBD3333-1
BASE PLATE

UNDER REVIEW

URF 19-1099 19.10.30 (VM)

DART AEROSPACE

TITLE: GROUND HANDLING WHEELS

DWG NO.	RBD412-729-011 RBD3333-1	REV 2
MAT'L	4140/4142	
HEAT TREAT		
FINISH	POWDER COAT YELLOW	
SPEC	FED #13538	
DRAWN BY:	GILBERT	
CHECKED:		
OPPS APPR:		
QA APPR:		
APPROVED:	GILBERT	
SCALE	1:3	
DATE	3/15/2012	
SHEET	11 OF 19	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

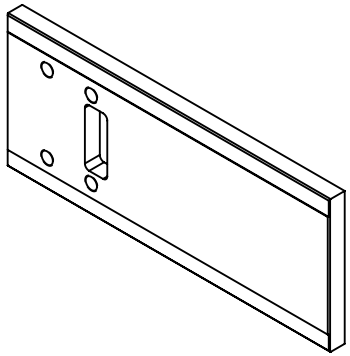
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

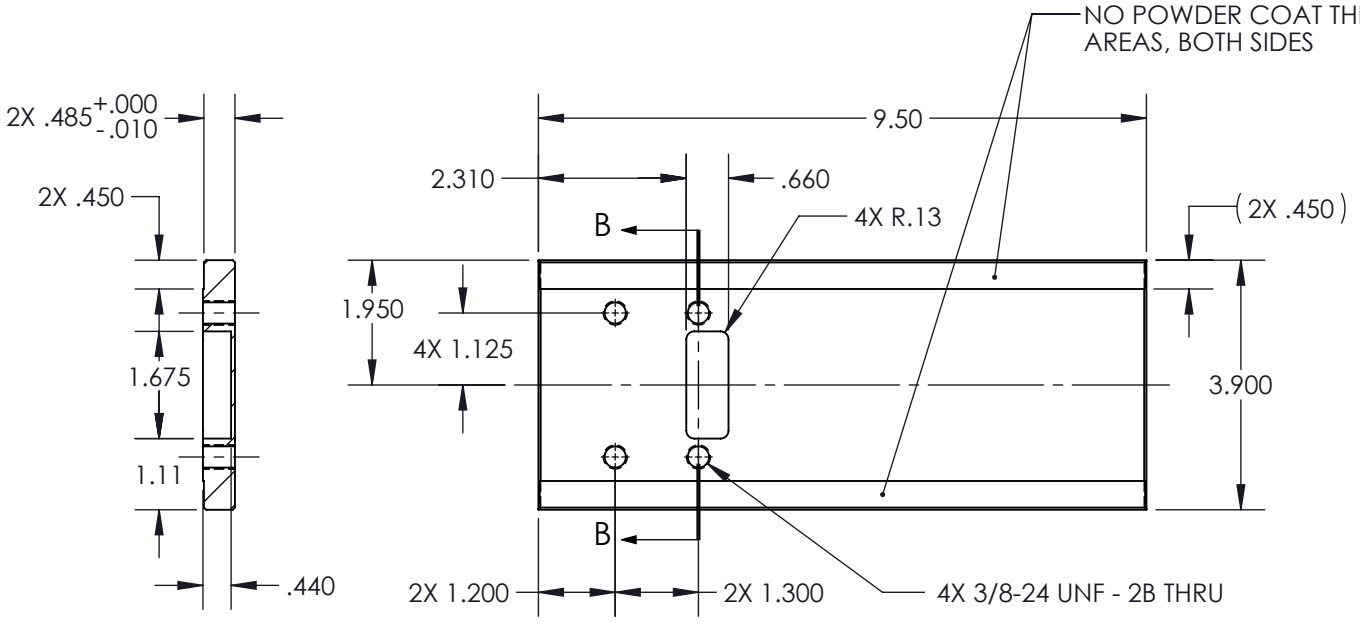
USED ON MODEL
SEE NOTE 2 SHT 1

REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0039	**RBD3333-3** CH'D DIM WAS .650 IS .660, WAS 1.200 IS 2X 1.200.	2/17/2016	SM	JAG

SEE ATTACHED DEVIATION

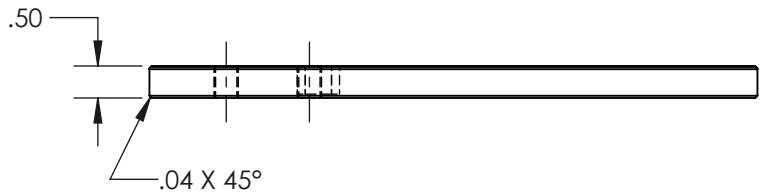




SECTION B-B

UNDER REVIEW

URF 19-1099 19.10.30 (VM)



RBD3333-3

SLIDING PLATE

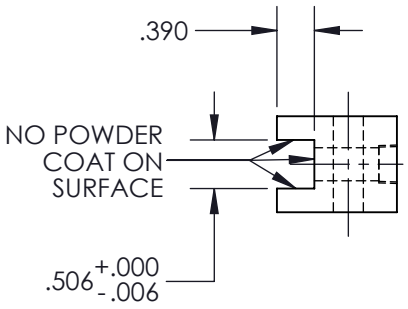
DART AEROSPACE

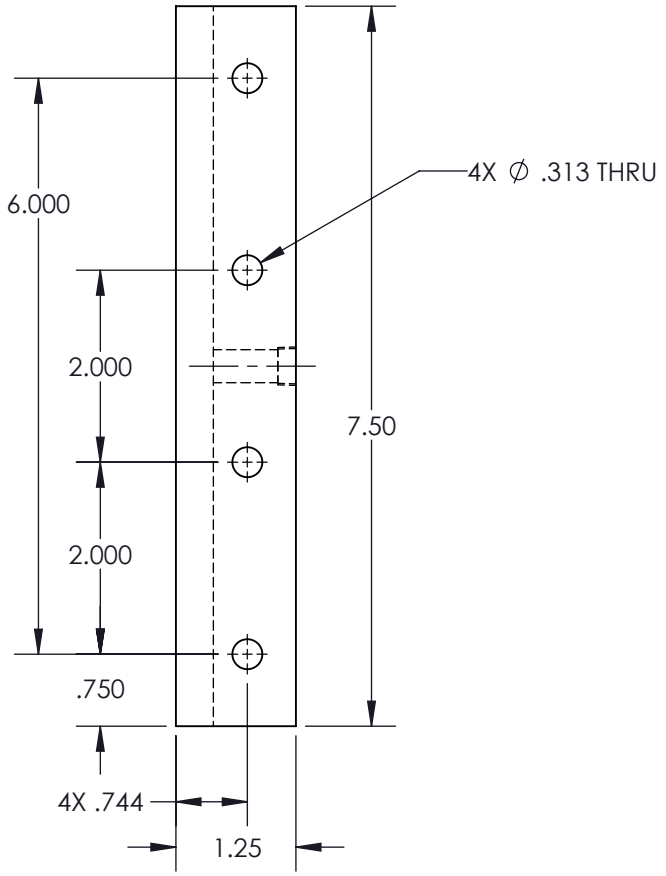
TITLE: GROUND HANDLING WHEELS

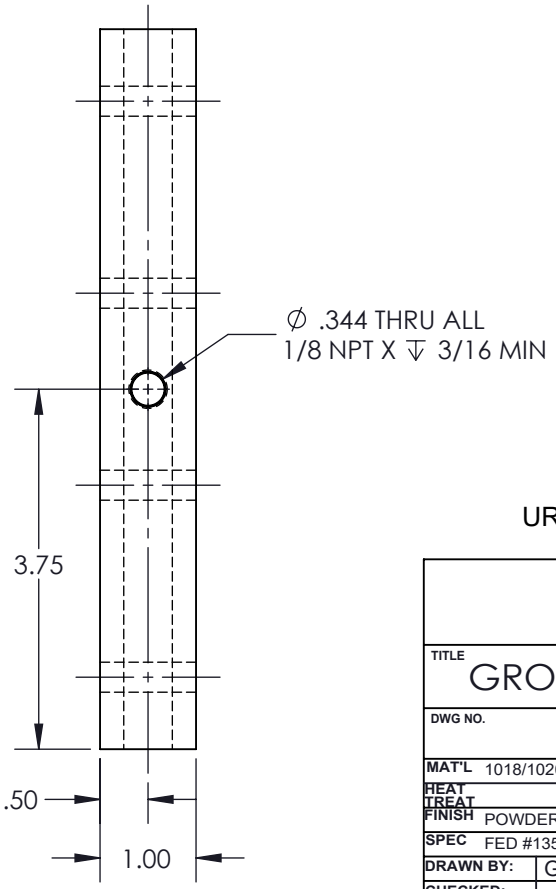
DWG NO.	RBD412-729-011 RBD3333-3	REV 2
MAT'L	4140/4142	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 SURFACES = 125
HEAT TREAT		
FINISH	POWDER COAT YELLOW	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
SPEC	FED #13538	
DRAWN BY:	GILBERT	
CHECKED:		
OPPS APPR:		
QA APPR:		USED ON MODEL
APPROVED:	GILBERT	SEE NOTE 2 SHT 1
SCALE	1:3	DATE 3/15/2012 — SHEET 12 OF 19

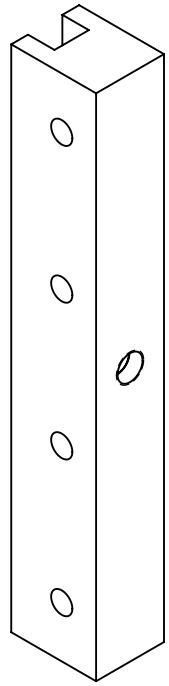
REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		-5 CH'D DIM WAS Ø.332 IS .344.	6/18/2014	RJC	GE
2	16-0039	**RBD3333-5** CH'D DIM WAS Ø.334 IS Ø.344.	2/17/2016	SM	JAG

SEE ATTACHED DEVIATION









RBD3333-5
RAIL

UNDER REVIEW

URF 19-1099 19.10.30 (VM)

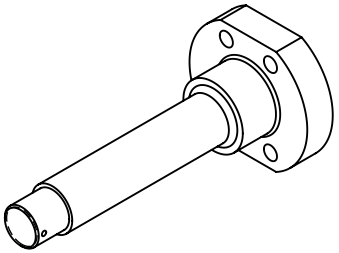
DART AEROSPACE

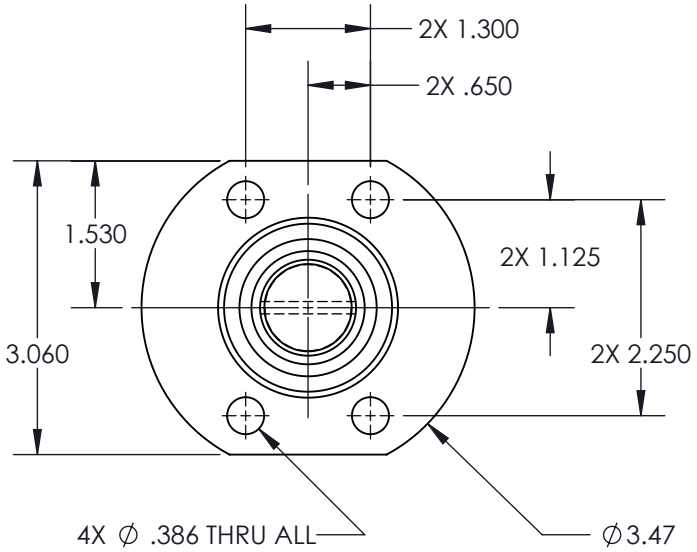
TITLE: GROUND HANDLING WHEELS

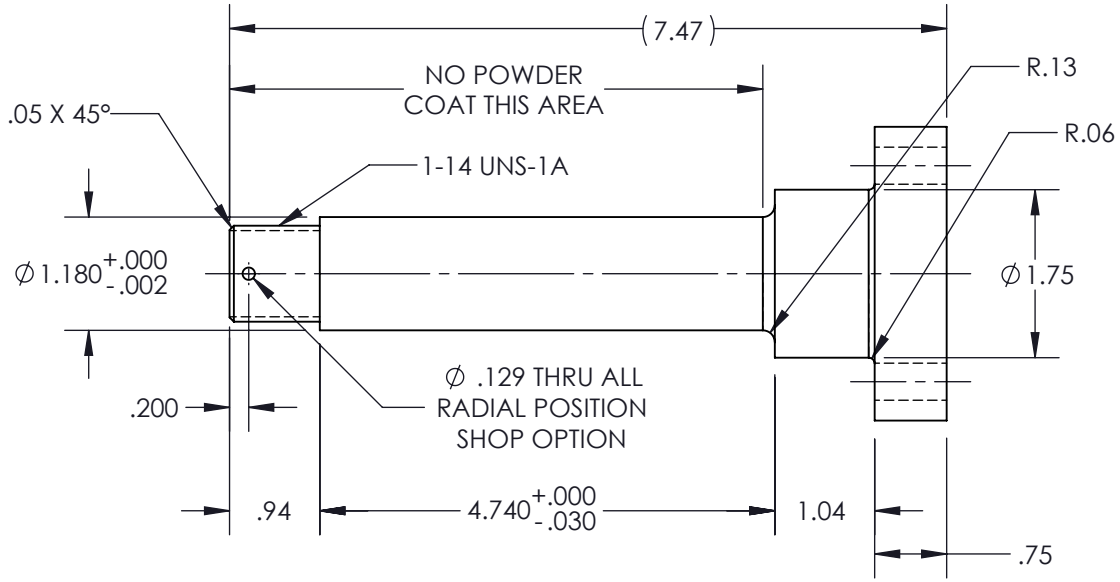
DWG NO.	RBD412-729-011 RBD3333-5	REV 2
MAT'L	1018/1020 CR	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT		.XXX ± .005 FRACTIONS ± 1/8
FINISH	POWDER COAT YELLOW	.XX ± .01 ANGLES ±.5°
SPEC	FED #13538	.X ± .1 SURFACES = 125
DRAWN BY:	GILBERT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED:		2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR:		3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR:		USED ON MODEL
APPROVED:	GILBERT	SEE NOTE 2 SHT 1
SCALE	1:2	DATE 3/15/2012 — SHEET 13 OF 19

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0039	**RBD3334-1** CH'D DIM WAS 7.47 IS (7.47).	2/17/2016	SM	JAG

SEE ATTACHED DEVIATION







UNDER REVIEW

URF 19-1099 19.10.30 (VM)

RBD3334-1

WHEEL SHAFT

DART AEROSPACE

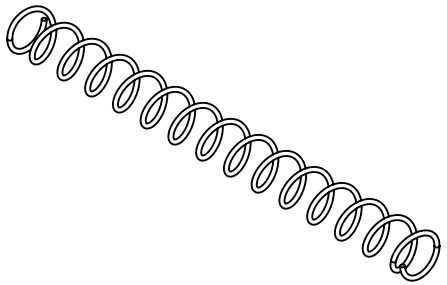
TITLE: GROUND HANDLING WHEELS

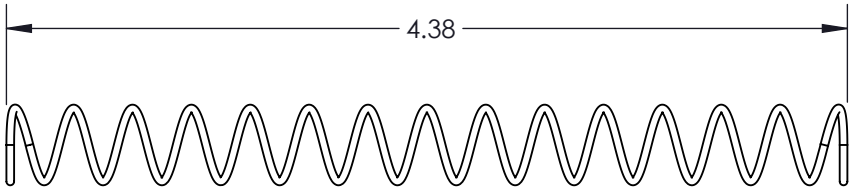
DWG NO.	RBD412-729-011 RBD3334-1	REV 2
MAT'L 4140/4142		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT		.XXX ± .005 FRACTIONS ± 1/8
FINISH POWDER COAT YELLOW		.XX ± .01 ANGLES ±.5°
SPEC FED #13538		.X ± .1 SURFACES = 125
DRAWN BY: GILBERT		1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED:		2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR:		3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR:		USED ON MODEL
APPROVED: GILBERT		SEE NOTE 2 SHT 1
SCALE 1:2	DATE 3/15/2012	SHEET 14 OF 19

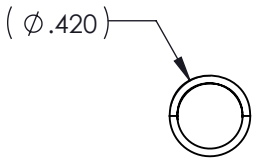
REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0039	**RBD3335-3** MOVED TO NEW SHEET.	2/16/2016	SM	JAG

SEE ATTACHED DEVIATION







UNDER REVIEW

URF 19-1099 19.10.30 (VM)

RBD3335-1

SPRING

DART AEROSPACE

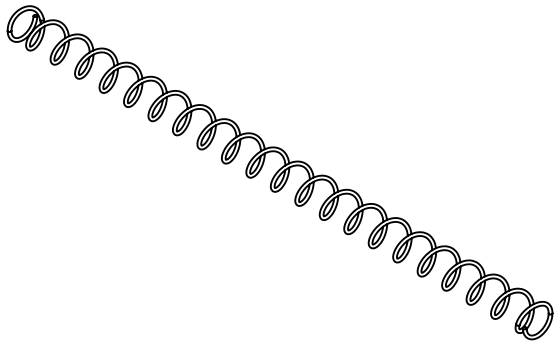
TITLE: GROUND HANDLING WHEELS

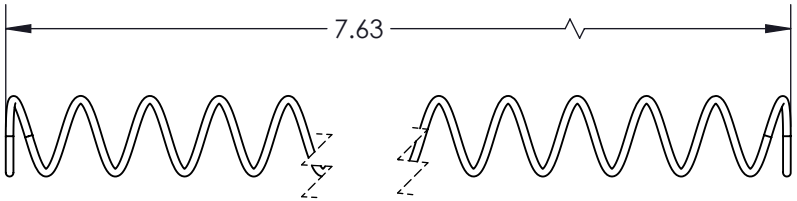
DWG NO.	RBD412-729-011 RBD3335-1	REV 2
MAT'L STEEL		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 SURFACES = 125 √
HEAT TREAT		
FINISH		
SPEC		
DRAWN BY:	GILBERT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
CHECKED:		
OPPS APPR:		
QA APPR:		USED ON MODEL
APPROVED:	GILBERT	SEE NOTE 2 SHT 1
SCALE 1:1	DATE 3/15/2012	SHEET 15 OF 19

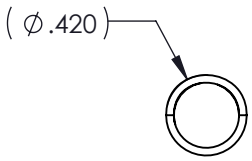
REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0039	**RBD3335-3** ADDED TO NEW SHEET.	2/16/2016	SM	JAG

SEE ATTACHED DEVIATION







UNDER REVIEW

URF 19-1099 19.10.30 (VM)

DART AEROSPACE

TITLE: GROUND HANDLING WHEELS

DWG NO.	RBD412-729-011 RBD3335-3
REV	2
MAT'L	STEEL
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	GILBERT
CHECKED:	
OPPS APPR:	
QA APPR:	
APPROVED:	GILBERT
SCALE	1:1
DATE	3/15/2012
SHEET	16 OF 19

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

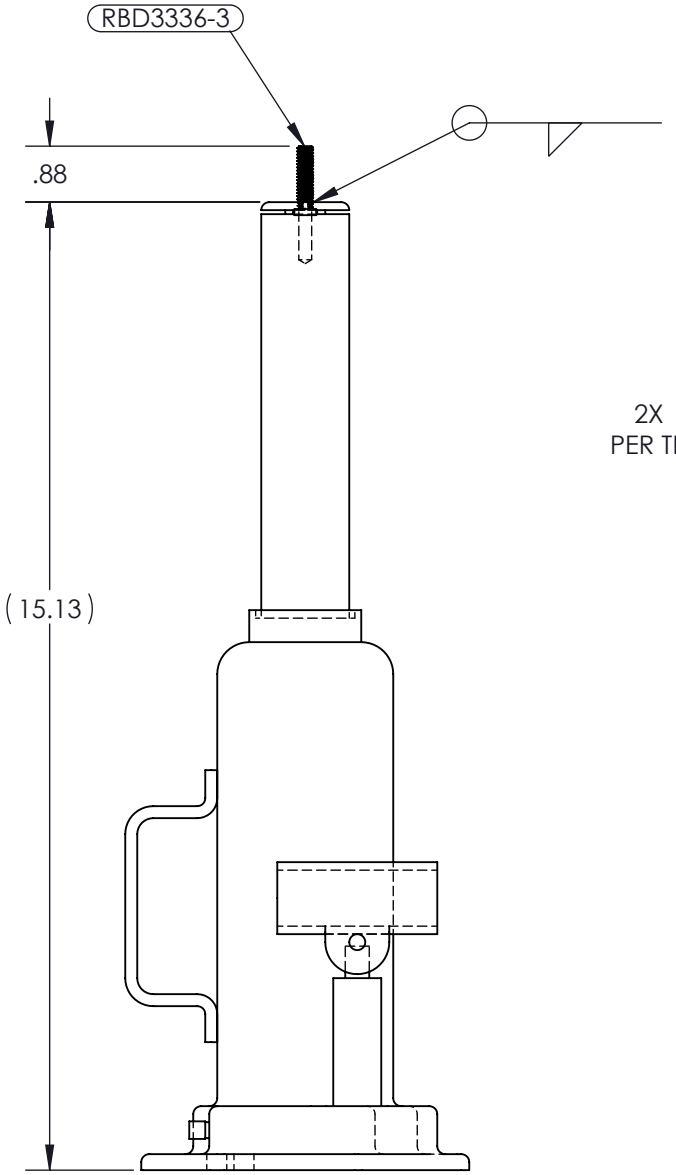
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

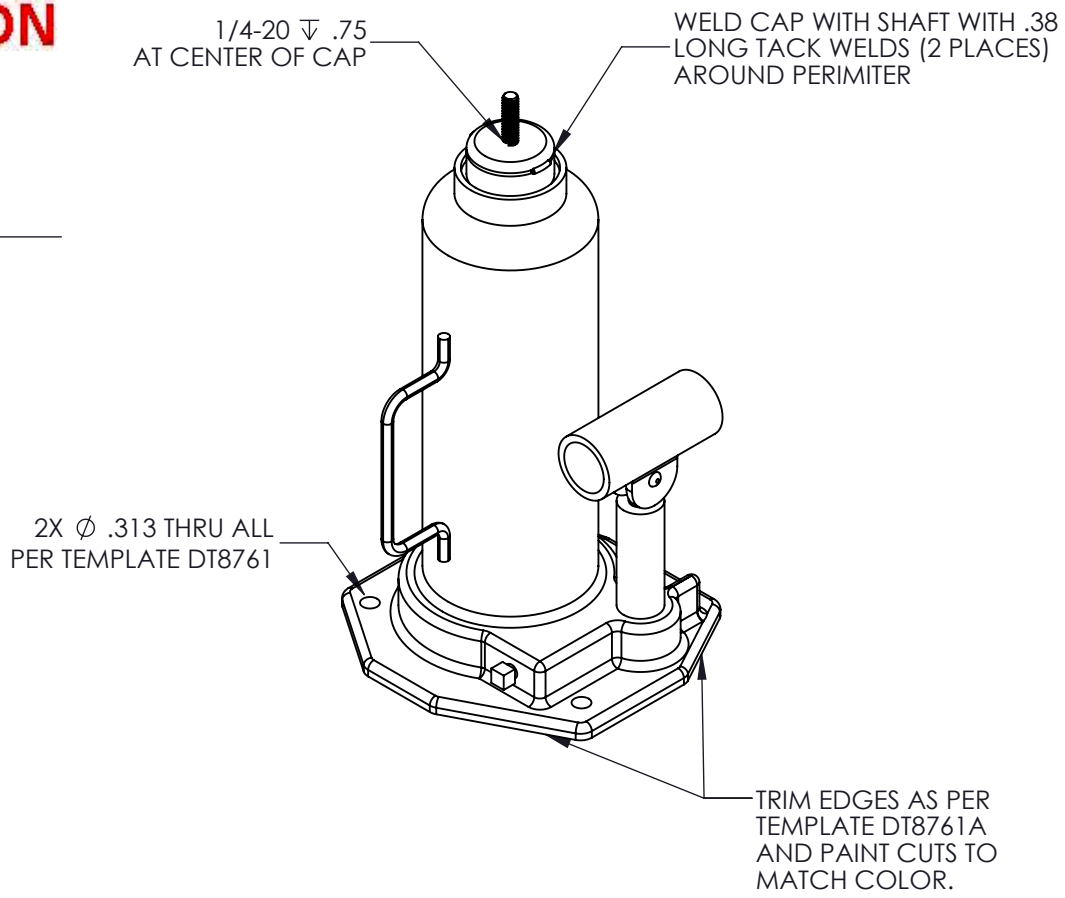
USED ON MODEL

REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED

SEE ATTACHED DEVIATION





UNDER REVIEW

URF 19-1099 19.10.30 (VM)

RBD3336-1

JACK

DART AEROSPACE

TITLE: GROUND HANDLING WHEELS

DWG NO.	RBD412-729-011 RBD3336-1
REV	2
MAT'L	
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	GILBERT
CHECKED:	
OPPS APPR:	
QA APPR:	
APPROVED:	GILBERT
SCALE	1:3
DATE	3/28/2012
SHEET	17 OF 19

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

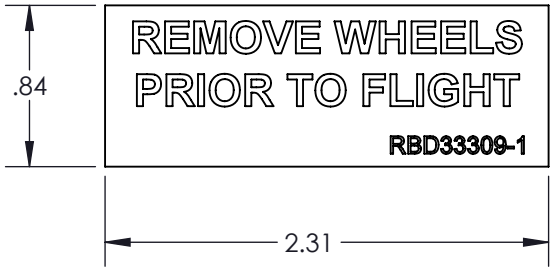
USED ON MODEL

SEE NOTE 2 SHT 1

REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0039	**RBD3309-3** MOVED TO SEPERATE SHEET.	2/16/2016	SM	JAG

SEE ATTACHED DEVIATION



NOTE:
1) MATERIAL: BLACK LETTERS ON ADHESIVE BACK

UNDER REVIEW

URF 19-1099 19.10.30 (VM)

RBD3309-1
LABEL, REMOVE BEFORE FLIGHT

DART AEROSPACE

TITLE: ROUND HANDLING WHEELS

DWG NO.	RBD412-729-011 RBD3309-1
REV	2
MAT'L	
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	GILBERT
CHECKED:	
OPPS APPR:	
QA APPR:	
APPROVED:	GILBERT
SCALE	1:1
DATE	3/15/2015
SHEET	18 OF 19

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

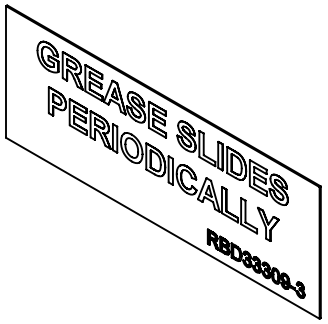
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

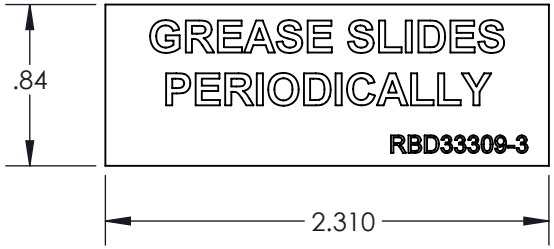
USED ON MODEL

REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0039	**RBD3309-3** ADDED TO NEW SHEET.	2/16/2016	SM	JAG

SEE ATTACHED DEVIATION





NOTE:
1) MATERIAL: BLACK LETTERS ON ADHESIVE BACK

UNDER REVIEW

URF 19-1099 19.10.30 (VM)

RBD3309-3
LABEL, GREASE SLIDES

DART AEROSPACE

TITLE: ROUND HANDLING WHEELS

DWG NO.	RBD412-729-011 RBD3309-3
REV	2
MAT'L	
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	GILBERT
CHECKED:	
OPPS APPR:	
QA APPR:	
APPROVED:	GILBERT
SCALE	1:1
DATE	3/15/2015
SHEET	19 OF 19

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

USED ON MODEL

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. RBD412-729-011

NCR No.

DISPOSITION

Rework	☐
Scrap	☐
Use-as-is	☐
Suspected Unapproved	☐

AGAINST DEPARTMENT/PROCESS

Skid-tube	☐	Cross tube	☐	Water Jet	☐	Engineering	☐
Machining	☐	Small Fab	☐	Prod. Eng. Coor.	☐	Quality	☐
Thermoforming	☐	Finishing	☐	Rec/Store/Packaging	☐	Other	☐
Large Fab	☐	Composite	☐	Supplier	☐		☐

Date :

Step #:

QTY Effective :

MRB (QSI042) Approval

JUNE 11, 2018

Description Work Order Deviation

- INSTALL DART PLACARD USING MCMASTER#97524A032 RIVETS

- NORCO JACK 76508B REPLACES RBD3336-1 JACK (NORCO 76508A)

- HOLES IN D3333-1 AND NORCO JACK 76508B MUST BE REPOSITIONED TO BE CLEAR FROM OIL GALLEYS

- D3330-041 FRAME WELDMENT JACK OPENING MAY BE ENLARGED TO ACCOMODATE JACK

Disposition

THIS DEVIATION IS ACCEPTABLE

THE FIT, FORM, AND FUNCTION OF THE PART WILL BE AS ORIGINALLY INTENDED

Completed By

Lead hand / Supervisor Approval Verification

QC / QA Coordinator Approval

URF 19-1099 19.10.30 (VM)

UNDER REVIEW

Root Cause

Environment			
Design	X		
Doc/Data			Offset/Setup
Equip/Tooling			Supplier
Handling/Pre			Training
Material			Use for Testing
Internal Transport			Poor Information
Tribal Knowledge			Rushing
LOA			Product Improvement
Substation			Process Improvement
Past Expiry Date			Manufacturing Process
Misidentified			Past Due

FAULT CATEGORY

☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong
☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions
☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance
☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect
☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing
☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved
☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing
☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish
☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread
☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence

☐ OTHER :